



Johnson City Field Office
TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION
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March 25, 2009

The Honorable Todd Malone, Mayor
City of Bluff City
P.O. Box 70
Bluff City, TN 37618

Re: Compliance Evaluation Inspection
Bluff City Water Treatment Plant
NPDES Permit No. TN0073423
Sullivan County

Dear Mr. Malone:

On March 5, 2009, I conducted a Compliance Evaluation Inspection (CEI) of the Bluff City Water Treatment Plant. The purpose of the CEI was to evaluate compliance with the General NPDES Permit for Discharges of Filter Backwash and Sedimentation Basin Wastewater from Water Treatment Plants. The following comments are for your consideration:

1. Discharge Monitoring Reports (DMRs) submitted to this office spanning the previous three years were reviewed. The review indicated that there were spikes in the concentrations of Aluminum immediately following rainfall events when the turbidity is increased. The plant operator has suggested the use of an additional polymer to aid in the settling of the flocculant if the spikes cause a violation of the permit limits.
2. Review of the DMRs also reveals spikes in the Total Residual Chlorine (TRC) analyses indicating a potential for a permit violation. These spikes are due to a limited holding time in the vertical holding tank prior to discharge. There are two filters that are backwashed once every two weeks, whereas the filter backwash wastewater must be released to allow room in the tank for the next backwash. The plant operator has suggested the implementation of dechlorination tablets prior to entering the holding tank to reduce TRC concentrations if violations of the permit limits occur.
3. GPL Laboratories in Johnson City conduct the Total Suspended Solids (TSS), Settleable Solids, and Aluminum concentration analyses. Total Residual Chlorine and pH analyses

are conducted on-site by the Bluff City Water Treatment Plant personnel immediately following sample extraction. The on-site equipment for TRC and pH analysis is calibrated weekly by Diversified Integration, Inc.

4. The outfall to Underwood Springs Branch was visited during the inspection. There was no discharge during the inspection. The outfall has been posted with a sign satisfying the permit requirements.
5. During the inspection, there was a leak discovered on the process water piping leading into the settling tank at a coupling connection. According to the plant operator, the coupling connection was replaced by personnel from the Bluff City Water Treatment Plant later that day following the inspection. The plant operator said that the leak no longer exists.

I would like to thank Ms. Donna Lawson for her time and cooperation during the inspection. If you have any questions you may reach me at brown.patton@state.tn.us or at (423) 854-5458.

Sincerely,

A handwritten signature in cursive script, appearing to read "Brown Patton".

Brown Patton
Division of Water Pollution Control
Johnson City Environmental Field Office